PERMIT APPLICATION: NRS #08.205

APPLICANT: Joe Kaldmo
Trans-Ash, Inc.
617 Shepherd Drive
Cincinnati, OH 45215
(513) 733-4770

LOCATION: Project is located on Bivens Cypress Road just west of the Cypress Creek embayment on Kentucky Lake; Camden, Benton County.

WATERSHED DESCRIPTION: Surrounding land use is gravel mining, existing ash landfill and small widely scattered woodlots. Unnamed tributaries to Cypress Creek and associated wetlands exist on the property. The tributaries have been altered from past land use activities noticeably gravel mining and landfill use. The wetlands exist as a result of the past gravel mining. The wetlands are primarily herbaceous Most have a connection to groundwater and receive runoff from mining spoils and are contained within gravel pits. No waters of the state have been determined not to be exceptional Tennessee waters. The proposed project lies within the Lower Kentucky Reservoir HUC 0604005.

PROJECT DESCRIPTION: The applicant proposes to expand the Bivens Industrial Park ash monofill site. The fill is bottom ash and fly ash from the Tennessee Valley Authority (TVA) Johnsonville Fossil Plant. The current permitted fill site is 40 acres and had 2.2 million cubic yards of storage space. The proposed expansion is to be 22 acres with 2.2 million cubic yards of storage. This area was chosen due to it being adjacent to the existing landfill, proximity to the TVA plant and it being an abandoned quarry.

The existing landfill was permitted under NRS01.366 that authorized impacts to 1.94 acres of jurisdictional wetland. Compensatory wetland mitigation consisted of the onsite creation of 6.345 acres. Four years of annual monitoring has shown it be successful.

Nine small wetland areas have been identified totaling 3.03 acres and 1,840 linear feet of an unnamed tributary exists on the site. Three open water features have also been identified. Table 1 show which waters of the state are to be impacted, the type of impact and proposed compensatory mitigation.

Stream impacts involve the relocation of the unnamed tributary into a 723 foot channel with adjacent linear wetlands in one location discharged through existing wetlands, the creation of 0.42 acres of linear wetland and the restoration of 634 feet of channel. The downstream section of the existing stream is heavily impacted by high concentrations of dissolved iron from the abandoned gravel and chert pits. Various water quality treatment features are proposed for the upper section while the removal of a culvert and bridge are proposed elsewhere. The proposed stream mitigation designs are shown in Figures 3a, 3b and 3c.

Compensatory wetland mitigation for the placement of fill in 3.03 acres shall occur onsite with compensation for 0.64 acres of linear wetland with 1.28 acres of similar habitat and 0.542 acres of open water habitat. The remaining 2.39 acres will be compensated for on TVA agricultural land within the White Oak Creek embayment on the lower Kentucky Lake watershed (same as the impacted wetland). Approximately 9.56 acres will be created with the construction of berms and scattered creation of ephemeral pools. One berm in the lower section of the property will retain backwater flooding from Kentucky Lake while the two other berms will retain overland runoff in the upper sections of the property. Sections of the property contain hydric soils and herbaceous wetland plants are found across the property indicating the ability of the site to become wet with longer water retention. The site will be monitored for 5 continuous years with annual reports submitted to this office and then during the $7^{th\ year}$ for tree survival.

In accordance with the Tennessee Antidegradation Statement (Rule 1200-4-3-.06), the division has determined that the proposed activity will not result in degradation to water quality.

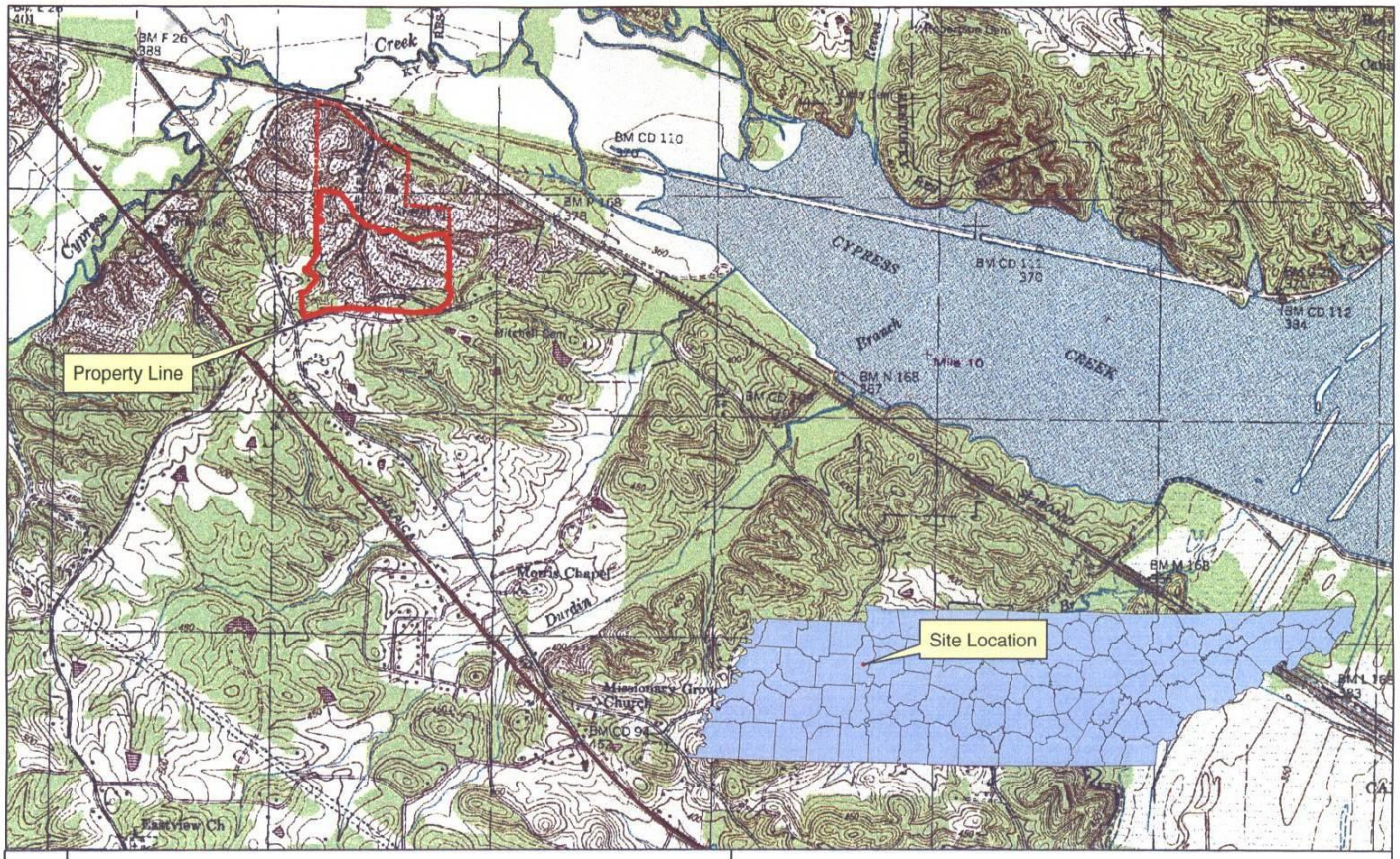
PERMIT COORDINATOR: Mike Lee
TOPOGRAPHICAL QUADRANGLE: Camden 20-SE
Lat 36.03993 Long -88.07186

No decision has been made whether to issue or deny this permit. The purpose of this notice is to inform interested parties of this permit application and to ask for comments and information necessary to determine possible impacts to water quality. Persons wishing to comment on the proposal are invited to submit written comments to the department. Written comments must be received within **thirty days of the date that this notice is posted**. Comments will become part of the record and will be considered in the final decision. The applicant's name and permit number should be referenced. Interested persons may also request in writing that the department hold a public hearing on this application. The request must be filed within the comment period, indicate the interest of the person requesting it, the reasons that the hearing is warranted, and the water quality issues being raised. When there is sufficient public interest in water quality issues, the department will hold a public hearing.

The permit application, supporting documentation including detailed plans and maps, and related comments are available at the department's address for review and/or copying. The department's address is:

Tennessee Department of Environment & Conservation
Division of Water Pollution Control, Natural Resources Section
7th Floor L & C Annex
401 Church Street
Nashville, TN 37243

In deciding whether to issue or deny a permit, the department will consider all comments on record and the requirements of applicable federal and state laws.



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405 Duke Drive, Suite 270, Franklin, TN 37067

Columbus, OH * Cincinnati, OH * Indianapolis, IN * Chicago, IL
St. Louis, MO * Export, PA * Detriot, MI * Pittsburgh, PA

Figure 1
Site Vicinity Map and Topo

Proposed TransAsh Expansion
Camden, Benton County, Tennessee

USGS Camden Quadrangle (20-SE)


Old Rail Spur
Old Bridge
Existing Culvert 2
Existing Mitigation Cells
Existing Culvert 1
Wetland-6 (.25 Acres)
Wetland-5 (.62 Acres)
Stream/Linear Wetland 777'
Wetland-4 (.08 Acres)
Wetland-7 (.39 Acres)
Proposed Expansion Area
Wetland-9 (.30 Acres)
Open Water Area - 3 (0.02 Acres)
Open Water Area - 2 (0.07 Acres)
Wetland-8 (.23 Acres)
Wetland-3 (.18 Acres)
Intermittent Stream (852')
Open Water Area - 1 (0.33 Acres)
Wetland-1 (.38 Acres)
Wetland-2 (.60 Acres)
CEC
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Figure 2b
Proposed TransAsh Expansion
Existing Resources - Aerial
Camden, Benton County, Tennessee
N
Drawn By: CEC
Checked By: JTD
Scale: 1:6,000

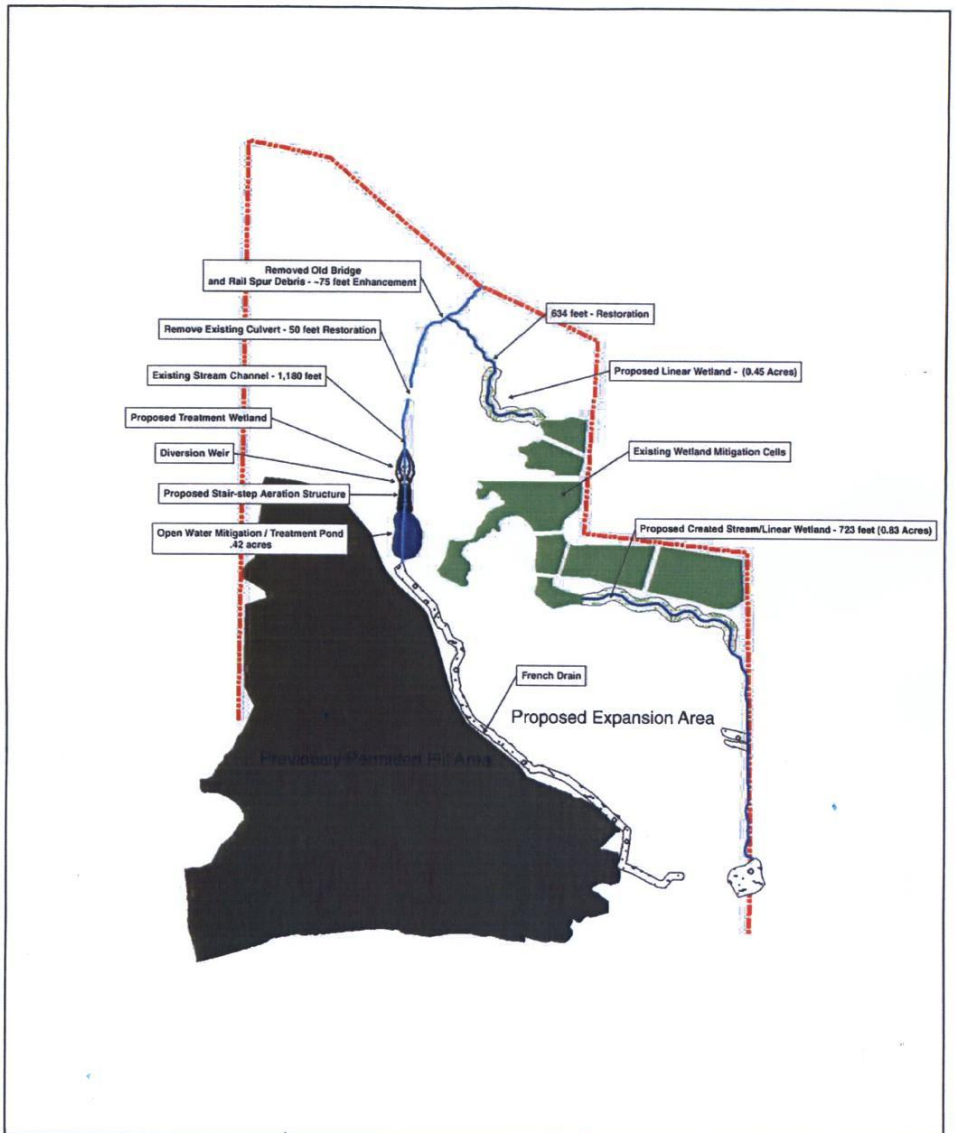

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Figure 3a
Proposed TransAsh Expansion
Mitgation Plan
Camden, Benton County, Tennessee

N

Drawn By: CEC | Checked By: JTD

Scale: 1:6,000

CEC
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Figure 3b
Proposed TransAsh Expansion
Mitgation Plan - Aerial
Camden, Benton County, Tennessee

N

Drawn By: CEC | Checked By: JTD

Scale: 1:6,000

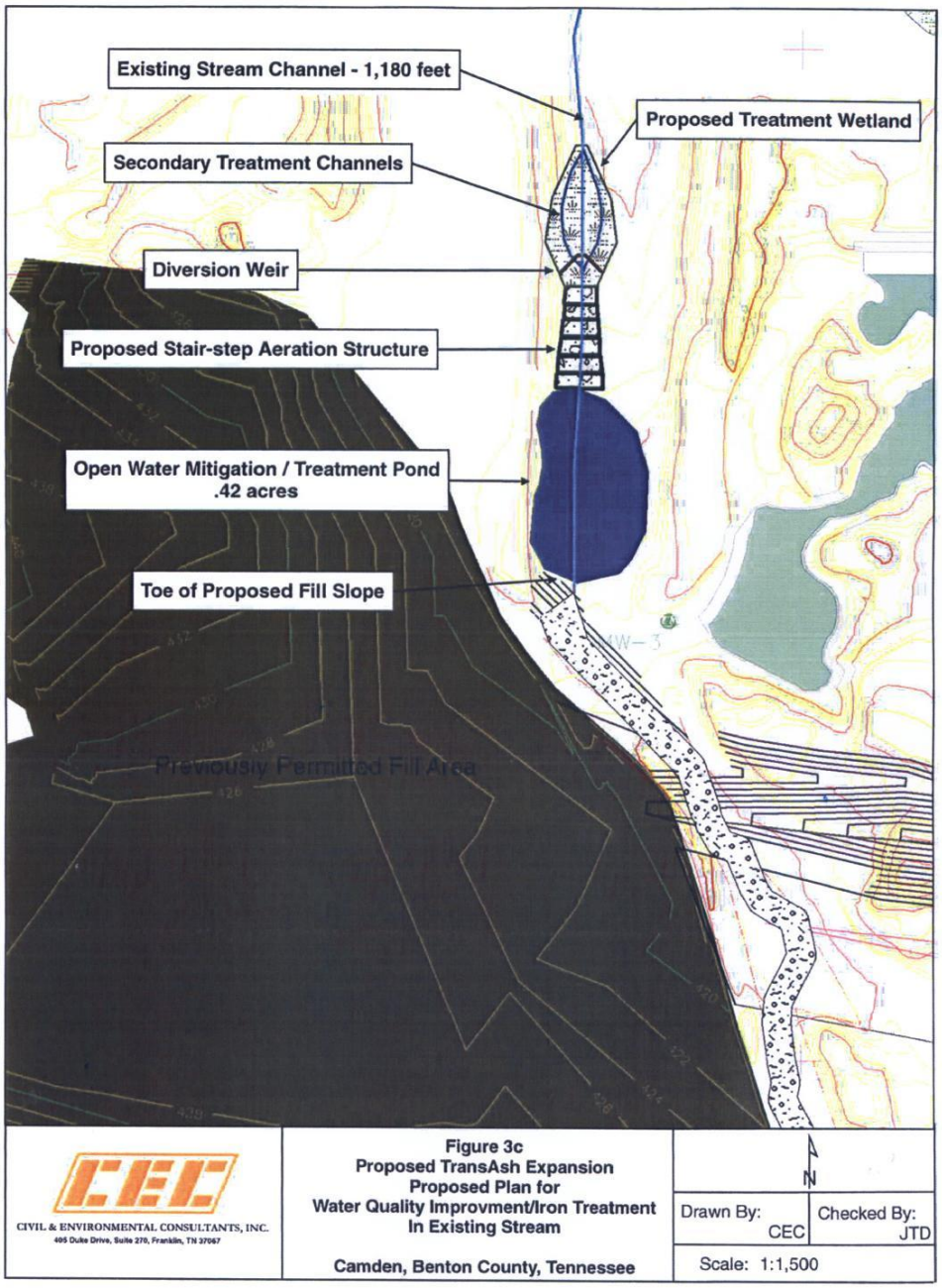
Existing Stream Channel - 1,180 feet
Proposed Treatment Wetland
Secondary Treatment Channels
Diversion Weir
Proposed Stair-step Aeration Structure
Open Water Mitigation / Treatment Pond
.42 acres
Toe of Proposed Fill Slope
Previously Permitted Fill Area
MW-3
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
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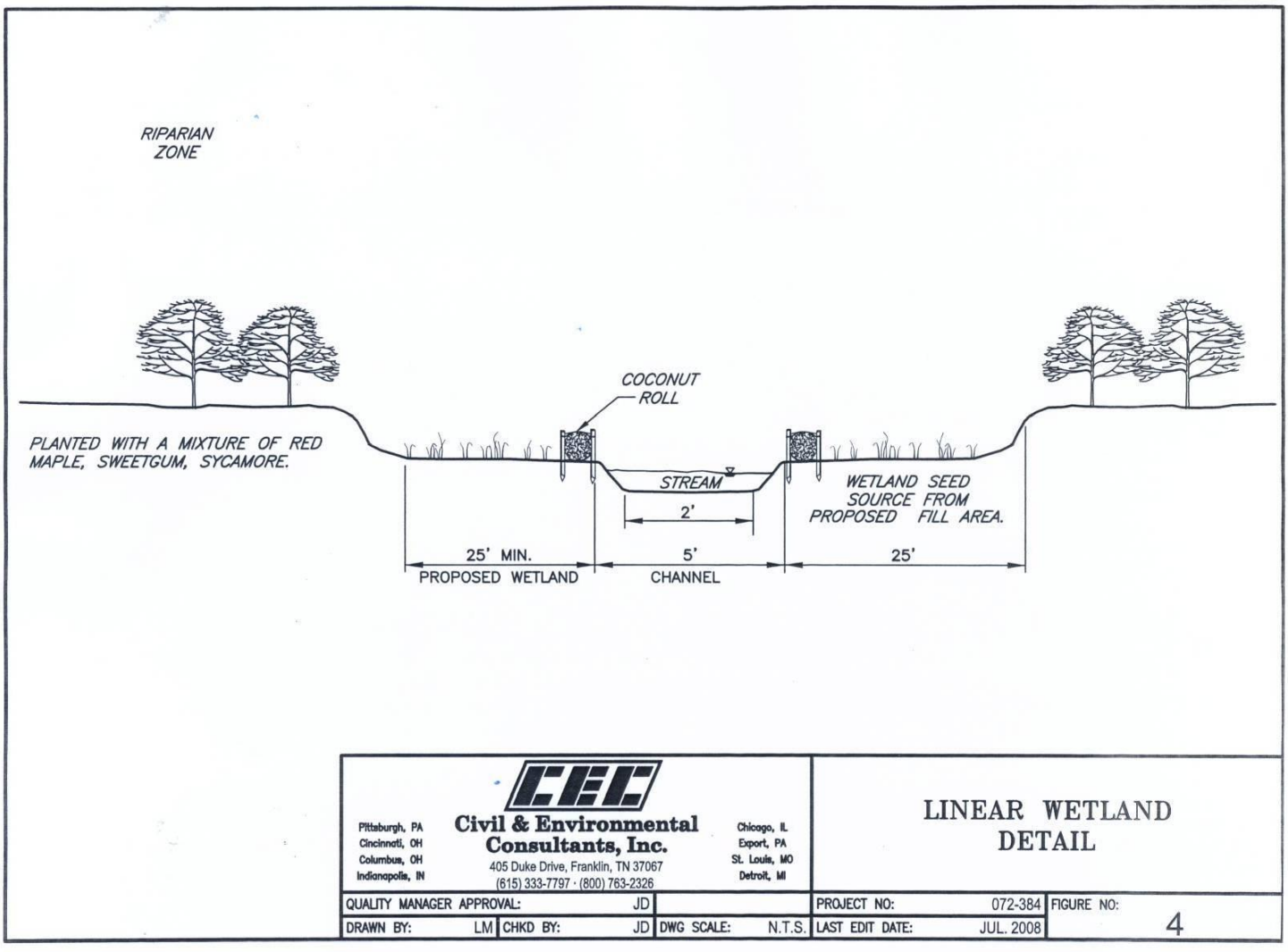
Figure 3c
Proposed TransAsh Expansion
Proposed Plan for
Water Quality Improvment/Iron Treatment
In Existing Stream
Camden, Benton County, Tennessee
N
Drawn By: CEC
Checked By: JTD
Scale: 1:1,500



Pittsburgh, PA
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Columbus, OH
Indianapolis, IN

Civil & Environmental Consultants, Inc.
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Chicago, IL
Export, PA
St. Louis, MO
Detroit, MI

LINEAR WETLAND DETAIL

QUALITY MANAGER APPROVAL:	JD			PROJECT NO:	072-384	FIGURE NO:	4
DRAWN BY:	LM	CHKD BY:	JD	DWG SCALE:	N.T.S.	LAST EDIT DATE:	JUL. 2008

Photo Summary
Bivens Expansion, Trans-Ash
Benton County, Tennessee
CEC # 072-384

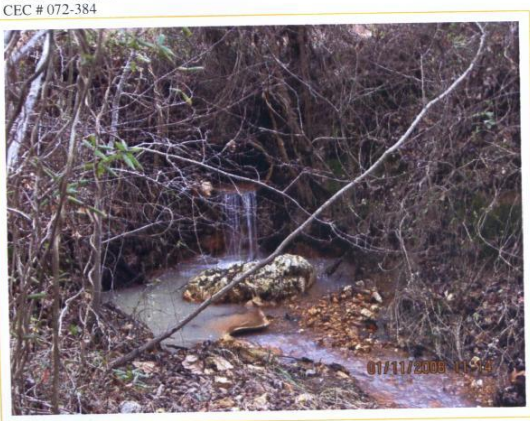

Photo 22
By: J. Duke
Date: 1/11/08
Feature: STR-1, culvert

View upstream at site road crossing just below current ash monofill site. Culvert will be removed and pond created to mitigated for open water impacts.

Photo 23
By: J. Duke
Date: 1/11/08
Feature: Linear wetland along STR-1; TVA-W007

Dominant vegetation is cattails, woolgrass, and sedges. Located within proposed impact zone.

Photo 24
By: J. Duke
Date: 1/11/08
Feature: Linear wetland located along STR-1; TVA-W007

Dominant vegetation is cattails, woolgrass, and sedges. Located within proposed impact zone.

Photo Summary
Bivens Expansion, Trans-Ash
Benton County, Tennessee
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Photo 31
By: J. Duke
Date: 1/11/08
Feature: TVA-W002

View up gradient at outlet of gravel pit in Photo 29.

Photo 32
By: J. Duke
Date: 1/11/08
Feature: TVA-W001

View down gradient; opposite direction from Photo 31. Located in proposed impact zone.

Photo 33
By: J. Duke
Date: 1/11/08
Feature: TVA-W001

View up gradient. Located in proposed impact zone.

Photo Summary
Bivens Expansion, Trans-Ash
Benton County, Tennessee
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Photo 7
By: J. Duke
Date: 1/11/08
Feature: Flooded Gravel Pit

Point where channel enters flooded gravel pit. The new channel will by-pass the pit.

Photo 8
By: J. Duke
Date: 1/11/08
Feature: Discharge from Flooded Gravel Pit

View of discharge from gravel pit into main stream flowing from Bivens Site.

Photo 9
By: J. Duke
Date: 1/11/08
Feature: Stream 1 (STR-1)

View of old railroad spur crossing. Crossing will be removed and channel restored.

Photo Summary
Bivens Expansion, Trans-Ash
Benton County, Tennessee
CEC # 072-384

Photo 10
By: J. Duke
Date: 1/11/08
Feature: STR-1

Location of old road wooden crossing. Crossing will be removed and channel restored Stream was actually overflowing the crossing and flowing through tire ruts.

Photo 11
By: J. Duke
Date: 1/11/08
Feature: STR-1

View upstream at channelized reach. In-stream habitat such as log weirs will be installed in enhance aquatic habitat.

Photo 12
By: J. Duke
Date: 1/11/08
Feature: Culvert on STR-1

View at downstream end of old culvert. Culvert will be removed and approximately 50 ft. of channel restored.

NRS #08.205
TRANS ASH, INC.
PAGE 13.

Photo Summary
Bivens Expansion, Trans-Ash
Benton County, Tennessee
CEC # 072-384

Photo 38
By: J. Duke
Date: 1/11/08
Feature: TVA-W004

Photo 39 (042)
By: J. Duke
Date: 1/11/08
Feature: CEC Wetland 00X

Identified by TVA as open water; TDEC jurisdictional water.

Photo Summary
Bivens Expansion, Trans-Ash
Benton County, Tennessee
CEC # 072-384

Photo 13
By: J. Duke
Date: 1/11/08
Feature: STR-1

View is downstream and in opposite direction from previous photo.

Photo 14
By: J. Duke
Date: 1/11/08
Feature: STR-1

View from atop culvert in Photo 12 and in the upstream direction. Culvert will be removed and channel restored.

Photo 15
By: J. Duke
Date: 1/11/08
Feature: Old road bed

Water is overflowing stream in places and flowing down old tire ruts and road bed.